

The opinion in support of the decision being entered
today was not written for publication and is
not binding precedent of the Board

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YI-SHUNG CHAUG,
THOMAS A. CARROLL, MARK SYNDER,
and R. SCOTT WINSLOW

Appeal No. 1999-1539
Application 08/584,118

ON BRIEF

Before JERRY SMITH, LALL and BLANKENSHIP, Administrative Patent
Judges.

LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from
the examiner's final rejection of claims 1 to 9, 13 and 14.
Claims 10 to 12 have been canceled.¹

¹ Applicants' amendment filed March 31, 1998, canceling
claims 10-12, should be formally entered, in accordance with
the indication in Part 3 of the Advisory Action mailed April
(continued...)

The invention is directed to a magnetic recording head having a substrate and closure element separated by a first gap and comprising a recording track layer deposited on the substrate, and a patterned gap layer deposited on a flat surface of the closure element. The first gap layer has a known nonplanar topography along a side facing the flat surface of the closure element. In order to prevent the creation of localized air gaps within the first gap layer and the closure element, the patterned gap layer is formed on the planar surface of the closure element with a topography inverse to that of the first gap layer. As a result, the gap separating the substrate and the closure element is substantially filled. Because the localized air gaps are filled to provide structural support for the closure element, the present invention is able to effectively reduce and/or eliminate micro chipping during lapping or grinding of the closure element at the time of manufacture. A further under-

¹(...continued)
7, 1998.

standing of the invention can be achieved by the following claim.

Claim 1 is reproduced below.

1. A magnetic recording head for at least one of reading from and writing to a medium moving across the head, comprising:

a substrate;

a closure separated from said substrate by a gap, wherein said closure has a substantially planar surface and is formed from a magnetic material;

a gap layer deposited on said substrate in said gap, said gap layer having a first nonplanar topography along said gap; and

a patterned gap filler layer deposited on said substantially planar surface of said closure having a second topography along said gap that inversely corresponds to said first nonplanar topography such that said gap between said substantially planar surface of said closure and said gap layer is substantially filled by said patterned gap filler layer.

The examiner relies on the following references:

Sundaram et al. (Sundaram)	5,394,285	Feb. 28, 1995
Canon (Japanese)	2-29910 ²	Jan. 31, 1990

² Our decision is based on the PTO English translation of this reference, a copy of which is enclosed with this decision.

Appeal No. 1999-1539
Application 08/584,118

Claims 1 to 9, 13 and 14 stand rejected under 35 U.S.C. § 102 as being anticipated by Sundaram.

Claims 1 to 3 stand rejected under 35 U.S.C. § 102 as being anticipated by Canon.

Claims 4 to 9, 13 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Canon in view of Sundaram.

Rather than repeat verbatim the arguments of appellants and the examiner, we make reference to the briefs³ and the answer for the respective details thereof.

OPINION

We have considered the rejections advanced by the examiner and the supporting arguments. We have, likewise, reviewed the appellants' arguments set forth in the briefs.

We reverse.

REJECTION UNDER 35 U.S.C. § 102

A prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently (see Hazani v.

³ A reply brief was filed as Paper No. 15. The examiner noted its entry, see Paper No. 16.

Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361
(Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Sys.,
Inc.,
730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)).

The examiner rejects claims 1 to 9, 13 and 14 at pages 2 to 4 of the final rejection. The main contention between the examiner and the appellants is that the nonplanar topography on the gap side layer of the closure element and on the gap side layer of the substrate element are of inverse shape so that the gap is eliminated between the two layers. The examiner asserts, final rejection at page 3, that "[a]lthough not specifically recited in Sundaram, the layer (304) is seen to be filled with a non-interactive material (to prevent the lodging of material in the otherwise open gap area, as in usual and well-known)." Appellants argue, brief at page 4, that "[b]ecause gap 304 (in Sundaram) is not substantially filled, and layer 312 is not deposited on the planar surface of the closure, Sundaram fails to satisfy this test for anticipation."

We disagree with the examiner's position. We note that the examiner has pointed to no place in Sundaram, or provided

any other evidence, to show that gap 304 in Sundaram is filled with a non-interactive material as asserted by the examiner. From Figures 3, 5 and 6, it is clear that Sundaram shows a gap 304 existing between the gap layer of the closure element and the gap layer of the substrate element.

Further, the examiner asserts that the examiner is going to call 212 of Sundaram as the claimed substrate and label 308 as the claimed closure element. In fact, the examiner asserts that he is going to consider gap 304 as a part of the closure element, and that element 312 is deposited on the closure element so that it provides the topography along the gap that inversely corresponds to the nonplanar topography of the nonplanar geometry comprising of elements 302 and 306 on the substrate 212, see Figure 3 (answer, pages 2-3). Even if we assume that the examiner is justified in calling element 308 as the closure element and element 212 as the substrate, which is contrary to what Sundaram calls them, we still do not see how the examiner is justified in making gap 304 as a part of the closure element 308. Furthermore, we do not see how element 312 is deposited on the substrate as recited in the claims.

Therefore, we do not sustain the anticipation rejection of claims 1 to 9, 13 and 14 by Sundaram.

The examiner rejects claims 1 to 3 as being anticipated by Canon at page 4 of the examiner's answer. The examiner asserts, final rejection at page 4, that "substrate (7-6); closure (7-5 and 7-3); gap layer (including 7-4 and 7-2); patterned gap filler layer (7-1) having a topography inversely corresponding with that of the gap layer so that the gap between the planar surface of the closure and substrate is substantially filled." However, we agree with appellants that, brief at page 5, "a nonmetal layer 7-3 interposes layers 7-1 and 7-5, and does not have an inverse topography. Neither layer 7-1 nor 7-3 meet the limitations of being deposited on the planar surface of the closure and substantially filling the gap between the closure and gap layer deposited on the substrate." We also note that in Figure 1 of the Canon reference there still exists gaps W_1 and W_2 between the substrate and the closure element. We, therefore, also do not sustain the anticipation rejection of claims 1 to 3 by Canon.

REJECTIONS UNDER 35 U.S.C. § 103

In our analysis, we are guided by the general proposition that in an appeal involving a rejection under 35 U.S.C. § 103, an examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined

on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). We are further guided by the precedent of our reviewing court that the limitations from the disclosure are not to be imported into the claims. In re Lundberg, 244 F.2d 543, 113 USPQ 530 (CCPA 1957); In re Queener, 796 F.2d 461, 230 USPQ 438 (Fed. Cir. 1986). We also note that the arguments not made separately for any individual claim or claims are considered waived. See 37 CFR § 1.192(a) and (c). In re Baxter Travenol Labs., 952 F.2d 388, 391, 21

USPQ2d 1281, 1285 (Fed. Cir. 1991) ("It is not the function of this court to examine the claims in greater detail than argued by an appellant, looking for nonobviousness distinctions over the prior art."); In re Wiechert, 370 F.2d 927, 936, 152 USPQ 247, 254 (CCPA 1967) ("This court has uniformly followed the sound rule that an issue raised below which is not argued in that court, even if it has been properly brought here by reason of appeal is regarded as abandoned and will not be considered. It is our function as a court to decide disputed issues, not to create them.").

The examiner rejects claims 4 to 9, 13 and 14 as being unpatentable over Canon in view of Sundaram at pages 5 and 6 of the final rejection. The examiner uses Sundaram for the teaching that a gap layer would include read and write tracks and that a magnetic head could be used in a tape recording environment. See page 5 of the final rejection. However, we note that neither Canon nor Sundaram provides for the deficiency noted above regarding the inverse geometry of the gap layers on the substrate and the closure element. Therefore, we do not sustain the obviousness rejection of these claims over Canon and Sundaram.

Appeal No. 1999-1539
Application 08/584,118

In conclusion, we reverse the decision of the examiner rejecting under 35 U.S.C. § 102 claims 1 to 9, 13 and 14 as being anticipated by Sundaram; and claims 1 to 3 as being anticipated by Canon. We also reverse the decision of the examiner rejecting under 35 U.S.C. § 103 claims 4 to 9, 13 and 14 as being obvious over Canon in view of Sundaram.

REVERSED

	Jerry Smith)	
	Administrative Patent Judge)	
)	
)	
)	
	Parshotam S. Lall)	BOARD OF
PATENT)	
	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
	Howard B. Blankenship)	
	Administrative Patent Judge)	

PSL/jg

Timothy R. Schulte
Storage Technology Corporation
2270 South 77th St, MS-4309
Louisville, CO 80028-4309